

REMARKS

By this amendment, the Applicants cancel claims 1-15 and add new claims 16-37 for Examination. Therefore, on entering this amendment, claims 16-37 are all the claims pending in the application.

Present claims 1-15 are rejected under 35 U.S.C. § 101 as well as under 35 U.S.C. § 112 first paragraph.

The Applicants respectfully delete claims 1-15. Therefore, their rejection is now rendered moot.

The Examiner has raised some issues regarding the presently deleted claims 1-15 which are addressed herein. The Applicants respectfully submit that new claims 16-37 recite patentable subject matter and are believed to have enabling support in the Specification.

In paragraph 2, the Examiner alleges that the claims are not limited to practice in the technological arts. New claims 16-37 recite computer-implemented methods and computer program products. So the allegation is now rendered moot.

In paragraph 3, the Examiner alleges that the claimed invention is not related to practical applications in the technological arts. The Examiner cites *AT & T Corp. v. Excel Communications, Inc.*, 50 USPQ2d 1447(Fed. Cir), in allegedly supporting the contention that abstract ideas are not patentable. However, the Applicants respectfully submit that the claimed invention is not an abstract idea or manipulation of abstract ideas as the Examiner is incorrectly characterizing it. The claimed invention is a computer-implemented method to solve a problem.

In fact, the Specification provides three real-world problems that can be solved by the present invention. The three problems discussed in the Specification are finding a best fit equation, an automatic way of transferring blocks and using 6-bit multiplexer to decode a binary address. A skilled artisan will know that a vast number of real word problems can be solved by the present invention.

In paragraphs 5 and 6 the Examiner appears to be discussing business method patents. The Applicants respectfully submit that this discussion on business methods patents is believed to be completely irrelevant, as the present invention is not believed to be a business method. It is a technique for solving a problem and has practical applications in several areas including computation, electrical engineering, etc, as noted in the example solutions discussed above.

As noted by the Examiner in paragraph 7, the court in *State Street Bank* found the final share price to be a quantity relied upon by regulatory authority for subsequent trades. Similarly, the present technique can be used by the very same traders to find a symbolic regression equation that fits data. It can be used by circuit designers to design circuit logic. The list of practical applications is believed to be limitless.

In paragraph 8, the Examiner appears to require a degree of “specificity” that is allegedly required by the *State Street Bank* case. The Applicants respectfully submit that the Examiner is mischaracterizing the *State Street Bank* case since no such degree of specificity is required by the holding nor by subsequent case law. Assuming arguendo that such a degree of specificity is

required, the Applicants respectfully submit that the three solved practical examples described in the Specification provide evidence of concrete and specific applications of the present invention.

The Examiner appears to be unnecessarily characterizing the term "linear chromosome" as used in the present invention as abstract. Fig. 1 shows how a mathematical expression is represented as a "linear chromosome." Each type of manipulation (mutation, transposition, etc) of a "linear chromosome" is described specifically with clear examples as shown in Figs. 5-10 and the accompanying description.

The entire position of the Examiner is centered around the allegation that the claimed invention is abstract and does not provide a useful tangible result. The real world examples and the solutions described in the Specification clearly demonstrate that the Examiner is incorrect in his position. Therefore, the Applicants respectfully submit that the new claims 16-37 should be found to be reciting patentable subject matter.

Since the Examiner does not provide additional reasons for rejections under 35 U.S.C. § 112, the above arguments are equally valid.

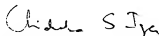
In view of the above, reconsideration and allowance of this application are now believed to be in order, and such actions are hereby solicited. If any points remain in issue which the Examiner feels may be best resolved through a personal or telephone interview, the Examiner is kindly requested to contact the undersigned at the telephone number listed below.

Amendment Under 37 C.F.R. § 1.111
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Respectfully submitted,



Chid S. Iyer
Registration No. 43,355

SUGHRUE MION, PLLC
Telephone: (202) 293-7060
Facsimile: (202) 293-7860

WASHINGTON OFFICE

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